

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

5 1-32 (cancelled)

33 (original): A data coding/decoding method comprising:

reading a frequency-domain matrix, the frequency-domain matrix comprising a plurality of frequency-domain elements;
10 providing a reference matrix comprising a plurality of reference elements each corresponding to a frequency-domain element, each reference element representing whether its corresponding frequency-domain element fits a default or not; and
taking a transformation step for generating an output matrix based on the
15 frequency-domain matrix, the transformation step comprising:
taking a transformation checking step for checking if the reference matrix fits a default matrix; if the reference matrix does not fit the default matrix, a corresponding output matrix is generated by proceeding to a transformation operation for the frequency-domain matrix; and
20 if the reference matrix fits the default matrix, the frequency-domain matrix is prevented from undergoing the transformation operation and the output matrix is a constant matrix.

34 (original): The data coding/decoding method of claim 33 wherein at least one
25 frequency-domain element is a direct current frequency-domain element and other frequency elements are alternating current frequency-domain elements among the plurality of frequency-domain elements; wherein when the reference matrix fits the default matrix, each reference element corresponding to each alternating current frequency-domain element in the reference matrix represents
30 that the alternating current frequency-domain element fits the default.

35 (original): The data coding/decoding method of claim 34 further comprising:

when the reference matrix fits the default matrix, a constant operation step is performed for generating the constant matrix by working out a constant value based on the direct current frequency-domain element so that a plurality of elements of the constant matrix equal the constant value.

36 (original): The data coding/decoding method of claim 33 wherein the default is null.

37 (original): The data coding/decoding method of claim 33 wherein the transformation operation is an inverse discrete cosine transformation.

38 (original): A processing circuit for data coding/decoding comprising:

a memory capable of storing a frequency-domain matrix, the frequency-domain matrix comprising a plurality of data elements;
a register module for storing a reference matrix wherein the reference matrix comprises a plurality of reference elements each corresponding to a frequency-domain element, each reference element for representing whether its corresponding frequency-domain element fits a default or not; and
a transformation module for providing a corresponding output matrix based on the frequency-domain matrix, the transformation module comprising:
a transformation operation module; and
a transformation checking module for checking if the reference matrix fits a default matrix; wherein if the reference matrix does not fit the default matrix, the transformation checking module triggers the transformation operation module to proceed to a transformation operation for generating a corresponding output matrix, and if the reference matrix fits the default matrix, the transformation checking module is prevented from triggering the transformation operation module to proceed to the transformation operation for

generating a corresponding output matrix and the output matrix is a constant matrix.

39 (original): A processing circuit for data coding/decoding of claim 38 wherein at
5 least one frequency-domain element is a direct current frequency-domain
element and other frequency elements are alternating current frequency-domain
elements among the plurality of frequency-domain elements; wherein when the
reference matrix fits the default matrix, each reference element corresponding to
each alternating current frequency-domain element in the reference matrix
10 represents that the alternating current frequency-domain element fits the default.

40 (original): The processing circuit for data coding/decoding of claim 39 further
comprising:
a constant operation module; wherein when the reference matrix fits the default
15 matrix, the transformation checking module triggers the constant operation
module to generate a constant value and the constant matrix based on the direct
current frequency-domain element so that a plurality of elements of the constant
matrix equal the constant value.

20 41 (original): The processing circuit for data coding/decoding of claim 38 wherein the
default is null.

42 (original): The processing circuit for data coding/decoding of claim 38 wherein the
transformation operation module is capable of performing an inverse discrete
25 cosine transformation.